



# COMMONWEALTH of VIRGINIA

Doug Domenech  
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY  
TIDEWATER REGIONAL OFFICE  
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(757) 518-2000 Fax (757) 518-2009  
[www.deq.virginia.gov](http://www.deq.virginia.gov)

David K. Paylor  
Director

Maria R. Nold  
Regional Director

May 16, 2012

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Edward G. Henifin  
General Manager  
Hampton Roads Sanitation District  
1436 Air Rail Ave  
Virginia Beach, VA 23455

RE: VPDES Permit No. VA0081311  
Reissuance for HRSD-York River STP  
Seaford, VA

Dear Mr. Henifin:

The enclosed effluent limitations and monitoring requirements for the above referenced permit have been approved. Additionally, enclosed are copies of the fact sheet pages that describe public participation in the permitting process. Please replace the pages in fact sheet that you received with the draft permit with these pages.

Your permit is also enclosed. In accordance with the permit, you are required to submit monitoring reports to the following address:

Department of Environmental Quality (DEQ)  
Tidewater Regional Office  
5636 Southern Boulevard  
Virginia Beach, VA 23462

The reporting forms are included with the permit. You will be responsible for obtaining additional copies of the reporting forms. The first report (DMR) is due for the month of February 2013 by March 10, 2013.

Please note that compliance with the permit's requirements for use and disposal of sewage sludge does not relieve you of your responsibility to comply with federal requirements set forth in 40 CFR Part 503. Until DEQ seeks and is granted authority to administer the Part 503 regulations by EPA, treatment works treating domestic sewage should continue to work directly with EPA to comply with them. For more information, you can call the EPA Region III office in Philadelphia at 215-814-5735.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court

of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period.

Alternatively, any owner under Section 62.1-44.16, 62.1-44.17, and 62.1-44.19 of the State Water Control Law aggrieved by any action of the State Water Control Board taken without a formal hearing, or by inaction of the Board, may demand in writing a formal hearing of such owner's grievance, provided a petition requesting such hearing is filed with the Board. Said petition must meet the requirements set forth in Section 1.23(b) of the Board's Procedural Rule No. 1. In cases involving actions of the Board, such petition must be filed within thirty days after notice of such action is mailed to such owner by certified mail.

A Reliability Class I is assigned to this facility and this facility has Class I licensed wastewater operator requirements.

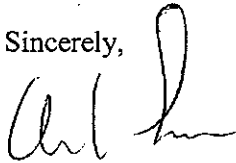
DEQ has launched an e-DMR program that allows you to submit the effluent data electronically. We anticipate that in the near future all permittees will be participants in the e-DMR program. There are many benefits to both DEQ and the permittee when e-DMR is utilized for submissions:

- 1) Fewer revisions for data since the e-DMR program automatically flags omissions before the data is submitted;
- 2) Cost savings on postage, copying, and paper;
- 3) No concerns about using the most current DMR – e-DMR refreshes the required parameters automatically when changes are needed;
- 4) Submittals can be made on a timelier basis; and
- 5) Electronic signatures from multiple people are allowed and e-DMR can be accessed from multiple computer locations.

We ask that you apply for e-DMR participation now so that we will be able to complete the application process when your permit is effective. The following website provides details and our regional e-DMR administrator Debbie Kay, phone 757-518-2127, [Deborah.kay@deq.virginia.gov](mailto:Deborah.kay@deq.virginia.gov) can also assist you:  
<http://www.deq.virginia.gov/water/edmrfaq.html>

If you have any additional questions, please do not hesitate to contact Deanna Austin at 757-518-2008 or [deanna.austin@deq.virginia.gov](mailto:deanna.austin@deq.virginia.gov)

Sincerely,



Mark H. Sauer  
Water Permit Manager

MHS/DDA

cc: DEQ - TRO File ECM  
EPA - Region III (3WP12)

Encl: Permit No. VA0081311  
Revised Fact Sheet Pages

12. SITE INSPECTION DATE: 5/3/11

REPORT DATE: 5/4/11

Performed By: Mark Kidd

SEE ATTACHMENT 1

13. DISCHARGE(S) LOCATION DESCRIPTION: Provide USGS Topo which indicates the discharge location, significant (large) discharger(s) to the receiving stream, water intakes, and other items of interest.

Name of Topo: Poquoson West Quadrant No.: 65B SEE ATTACHMENT 2

14. ATTACH A SCHEMATIC OF THE WASTEWATER TREATMENT SYSTEM(S) [IND. & MUN.]. FOR INDUSTRIAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE PRODUCTION CYCLE(S) AND ACTIVITIES. FOR MUNICIPAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE TREATMENT PROVIDED.

Narrative: This facility provides secondary treatment and enhanced nutrient removal. Treatment is provided by screening, grit removal, primary clarification, aeration, secondary clarification, denitrification filters, chlorination and dechlorination. Biosolids are treated by anaerobic digestion, gravity belt thickening, and centrifuge dewatering prior to disposal. Biosolids are treated for composting by McGill Environmental Systems. As a backup plan, Biosolids can be incinerated at another HRSD facility, primarily Boat Harbor STP or landfilled at Bethel Landfill in Hampton VA.

SEE ATTACHMENT 3

15. DISCHARGE DESCRIPTION: Describe each discharge originating from this facility.

SEE TABLE I (OR CAN SUBSTITUTE PAGE 2C) - SEE ATTACHMENT 4

16. COMBINED TOTAL FLOW:

TOTAL: 15.08 MGD (for public notice)

PROCESS FLOW: \_\_\_\_\_ MGD (IND.)

NONPROCESS/RAINFALL DEPENDENT FLOW: 0.085 (Est.)

DESIGN FLOW: 15 MGD (MUN.)

17. STATUTORY OR REGULATORY BASIS FOR EFFLUENT LIMITATIONS AND SPECIAL CONDITIONS:  
(Check all which are appropriate)

☒ State Water Control Law  
☒ Clean Water Act  
☒ VPDES Permit Regulation (9 VAC 25-31-10 et seq.)  
☒ EPA NPDES Regulation (Federal Register)  
EPA Effluent Guidelines (40 CFR 133 or 400 - 471)  
☒ Water Quality Standards (9 VAC 25-260-5 et seq.)  
Wasteload Allocation from a TMDL or River Basin Plan

18. EFFLUENT LIMITATIONS/MONITORING: Provide all limitations and monitoring requirements being placed on each outfall.

SEE TABLE II - ATTACHMENT 5

22. **SLUDGE DISPOSAL PLAN:** Provide a description of the sludge disposal plan (e.g., type sludge, treatment provided and disposal method). Indicate if any of the plan elements are included within the permit.

Sludge from this facility is dewatered with centrifuges and then composted by McGill Inc. The primary back-up plan is to haul the sludge to the HRSD Boat Harbor for incineration.

23. **MATERIAL STORED:** List the type and quantity of wastes, fluids, or pollutants being stored at this facility. Briefly describe the storage facilities and list, if any, measures taken to prevent the stored material from reaching State waters.

The materials stored on site include sodium hypochlorite, sodium bisulfate, sodium hydroxide, ferric chloride, polymer, fuel oil, propane, ammonia, methanol, gasoline and diesel fuel. The materials are either stored in buildings with drains connected to the treatment system or are in contained areas. Fuel tanks are double walled.

24. **RECEIVING WATERS INFORMATION:** Refer to the State Water Control Board's Water Quality Standards [e.g., River Basin Section Tables (9 VAC 25-260-5 et seq.)]. Use 9 VAC 25-260-140 C (introduction and numbered paragraph) to address tidal waters where fresh water standards would be applied or transitional waters where the most stringent of fresh or salt water standards would be applied. Attach any memoranda or other information which helped to develop permit conditions (i.e. tier determinations, PREP complaints, special water quality studies, STORET data and other biological and/or chemical data, etc.

SEE ATTACHMENT 9

25. **305(b)/303(d) Listed Segments:** Indicate if the facility discharges to a segment that is listed on the current 303(d) list and, if so, provide all appropriate information/calculations.

This facility discharges to the Dominion Power Cooling Channel which directly discharges to the York River. This receiving stream segment has been listed in Category 5 of the 305(b)/303(d) list for non-attainment of Nitrogen, Phosphorus, TSS, and PCBs in Fish Tissue. EPA approved the Chesapeake Bay TMDL on 12/29/10. for this segment. It contains a wasteload allocation for this discharge of the above parameters. This permit did receive an individual annual WLA, which is presented as both Edge of Stream (EOS) and Delivered Load (DEL):

TN (lbs/yr): EOS 274,100; DEL 274,084.4

TP (lbs/yr): EOS 18,273; DEL 18,340.87

TSS (lbs/yr): EOS 1,370,502; DEL 1,260,000

This permit contains limits of 1703 kg/day monthly average TSS and 2555 kg/day weekly average TSS which means the DEL is less than the DEL in the TMDL therefore TSS is in compliance with the TMDL. The York River HRSD facility is covered under the Nutrient General Permit VAN030052 for the loads of TN and TP. Load limits are contained within the GP, not the individual permit. Per DEQ Central Office- The TMDL includes load limits for the HRSD facilities and the GP requires that they meet those load limits in aggregate. The individual WLAs under the aggregate registrations are listed on the registration list for informational purposes only. The York River plant doesn't have to meet their individual WLA. The 3 HRSD York River plants only have to meet their aggregate delivered WLA (which includes the 4<sup>th</sup> WLA from Mathews CH).

The Water Quality Management Plan covered under regulation 9 VAC25-720-120C provides the WLAs for which the Nutrient GP are based from.

This facility discharges stormwater directly to Back Creek. This receiving stream segment has been listed in Category 5 of the 303(d) list for non-attainment of

fecal coliform and enterococci. EPA approved the Poquoson River and Back Creek TMDL on 8/2/06 for this segment. The facility was not assigned an individual waste load allocation for fecal coliform and enterococci.

26. CHANGES TO PERMIT: Use TABLE III(a) to record any changes from the previous permit and the rationale for those changes. Use TABLE III(b) to record any changes made to the permit during the permit processing period and the rationale for those changes [i.e., use for comments from the applicant, VDH, EPA, other agencies and/or the public where comments resulted in changes to the permit limitations or any other changes associated with the special conditions or reporting requirements].

SEE ATTACHMENT 10

27. NPDES INDUSTRIAL PERMIT RATING WORKSHEET:

N/A - This is a municipal facility.

28. DEQ PLANNING COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from DEQ planning.

The discharge is not addressed in any planning document but will be included when the plan is updated.

29. PUBLIC PARTICIPATION: Document comments/responses received during the public participation process. If comments/responses provided, especially if they result in changes to the permit, place in the attachment.

VDH/DSS COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the Virginia Dept. of Health and the Div. of Shellfish Sanitation and noted how resolved.

The VDH reviewed the application and waived their right to comment and/or object on the adequacy of the draft permit. Memo received 3/9/12.

The DSS has no comments on the application/draft permit. Email received 4/4/12.

EPA COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the U.S. Environmental Protection Agency and noted how resolved.

EPA has no objections to the adequacy of the draft permit. Email received 5/9/12.

ADJACENT STATE COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from an adjacent state and noted how resolved.

Not Applicable.

OTHER AGENCY COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from any other agencies (e.g., VIMS, VMRC, DGIF, etc.) and noted how resolved.

Not Applicable.

OTHER COMMENTS RECEIVED FROM RIPARIAN OWNERS/CITIZENS ON DRAFT PERMIT: Document any comments received from other sources and note how resolved.

The application and draft permit have received public notice in accordance with the VPDES Permit Regulation, and no comments were received.

DESCRIBE PN COMMENTS AND RESOLUTIONS. PROVIDE PUBLIC HEARING DATE AND REFERENCE BACKGROUND MEMORANDUM, IF APPROPRIATE.

modification of this permit to include annual concentrations limits based on the nutrient removal technologies listed in the CTC. The CTC for this facility was issued on 5/12/08 by DEQ office of wastewater engineering staff. The permit was modified to include the TN limit. The CTO was issued on 10/13/11 and the limit became effective. The limit of 8.0 mg/l is in accordance with the significant figure guidance document 06-2016.

**Total  
Nitrogen  
Year-to-Date**

There is no limit for the monthly average TN Year-to-date parameter. This parameter was added to the permit in accordance with guidance document 07-2008. Reporting is 1/M and is a calculation. Data for this parameter is collected in accordance with the VPDES permit VAN030052 for the York River Watershed held by HRSD.

**Total  
Nitrogen**

There will be no limit for the monthly average nitrogen. This parameter is added to the modified permit as a final limit and reporting will become effective upon the issuance date of the CTO for the nutrient removal facilities. This parameter was added to the permit in accordance with guidance document 07-2008. Reporting will be 1/M. Data for this parameter is collected in accordance with the VPDES permit VAN030052 for the York River Watershed. Reporting for this parameter is required in the individual permit (IP) because the annual concentration limits is contained in the IP. All data used to calculate and determine compliance with the limit in the IP needs to be in the same document and reported on the same form as the limit.

**Water Quality Standards Reasonable Potential**

Nickel, Zinc, Chloroform, and Ammonia all had a quantifiable concentration for the data gathered for the 2012 application. However, these data points were significantly below the most limiting wasteload allocations found in the attached wasteload allocation analysis. No limits were needed for these parameters.

All other water quality parameters reported on Form 2A were below the quantification levels. No additional limits are needed at this time.

**Mixing Zone Analysis**

The acute dilution ratio of 58:1 was approved by DEQ in a letter dated October 4, 1999. A dilution of 425:1 was determined by HRSD in a memo dated April 6, 1984 for chronic dilution. The chronic dilution is an estimate of the combined Dominion Power and HRSD wastewater discharges through the Dominion Power multi-port diffuser.

**Stormwater**

Outfalls 002, 003, 005-007 are discharges of stormwater from the plant (industrial) area. HRSD submitted stormwater sample data from one outfall located at the York River HRSD plant. It is HRSD's position that this data represents all the stormwater outfall discharges for this plant site.

HRSD has met the requirements for industrial "no exposure", thereby only discharging stormwater not associated with an industrial activity. The Stormwater Management Condition has been removed from the permit. The "no exposure" certification form is attached to the section.

Persons may comment in writing or by e-mail to the DEQ on the proposed issuance/reissuance/modification of the permit within 30 days from the date of the first notice. Address all comments to the contact person listed below. Written or e-mail comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The Director of the DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requestor's interests would be directly and adversely affected by the proposed permit action.

All pertinent information is on file and may be inspected, and arrangements made for copying by contacting Deanna Austin at: Department of Environmental Quality (DEQ), Tidewater Regional Office, 5636 Southern Boulevard, Virginia Beach, VA 23462. Telephone: 757-518-2008 E-mail: [deanna.austin@deq.virginia.gov](mailto:deanna.austin@deq.virginia.gov)

Following the comment period, the Board will make a determination regarding the proposed issuance/reissuance/modification. This determination will become effective, unless the Director grants a public hearing. Due notice of any public hearing will be given.

30. ADDITIONAL FACT SHEET COMMENTS/PERTINENT INFORMATION: